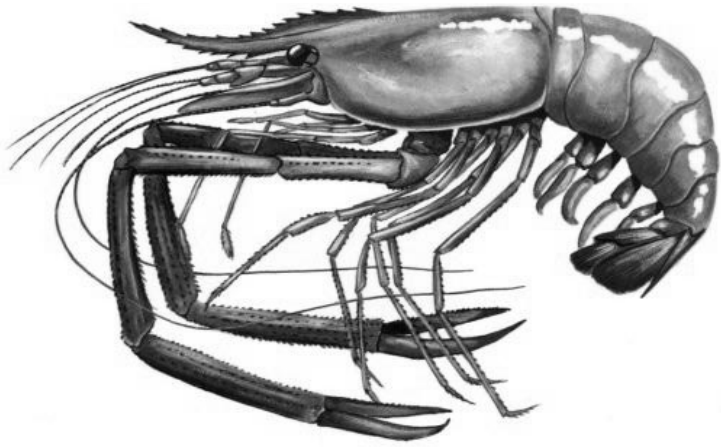
Freshwater Prawns



Freshwater Prawns (*Macrobrachium rosenbergii*) are often called freshwater shrimp. There are many species of *Macrobrachium* in the world, but *M. rosenbergii* is most suitable for culture due to its large size and its less aggressive nature under culture conditions. Production techniques were first developed in Malaysia in the 1950's. Research has also been done on the culture of *M. rosenbergii* in Israel, Hawaii, South Carolina, Florida, Texas, and Louisiana and Kentucky.[1]

In the U.S., most production is done in Mississippi, followed by Kentucky, Tennessee and Alabama, respectively. There are about 445 growers in the U.S. with a total of approximately 1200 acres.[6] Production ranges from about 500 lbs./acre in Mississippi to about 900 lbs./acre in Kentucky.[2] Due to the biology of freshwater prawns, producers in the continental U.S. are limited to one production cycle per year.[6]

M. rosenbergii, a tropical specie, can survive in the warm North Carolina summers, but would die off during the winters. This limits freshwater prawns to one production cycle a year. Growers would need to buy small prawns from nurseries each year to restock. North Carolina growers could expect to get between 500 and 600 pounds of production per acre per year.[5]

Earthen ponds similar to those used in catfish farming are suitable for growing freshwater prawns. Sizes of freshwater prawn ponds range from 0.5 acres to 4.0 acres. These ponds should have a minimum depth of 3 feet with a maximum depth of 6 feet.[3] Due to the benthic nature of freshwater prawns, ponds must also have adequate aeration to circulate oxygenated water to the bottom of the pond. It is recommended ponds be constructed with a small internal catch basin to ease in harvesting.[2] As stocking rates increase, providing additional structure in the pond can help to increase yields.[4] Prawns must also be processed quickly after harvest. Placing prawns in ice after harvest helps to preserve quality in warmer weather.[3]

Labor in prawn production ponds can be estimated at 30 minutes per acre per day. Feed costs can also be estimated at $500-$600 per acre per growing season.[6]

There are several constraints to the freshwater prawn industry. There are less than half a dozen nurseries nationwide. This increases the cost of juveniles due to transportation issues.

Freshwater prawns also have low survival in commercial grow-out operations. In non-traditional shrimping areas, there is insufficient processing and marketing infrastructure. As with marine shrimp, there is also competition from foreign imports.[7] These imports have driven the price of all shrimp to low levels.

North Carolinians who are interested in raising freshwater prawns should check with the **North Carolina Wildlife Resources Commission** for current regulations on exotic species before beginning facility construction.

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